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A Spatial Analysis of the 2019 European Parliamentary Elections in the City of Iași

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Abstract

European Parliament elections were held in Romania on 24 May 2019. The results were spectacular. PSD, the ruling party, suffered a major defeat, amidst a strong mobilization in favour of PNL and USR-PLUS, the main opposition parties. This paper is one of the first detailed attempts to understand the electoral behaviors at this contest. Voting decisions are researched through an exploratory spatial analysis on a case study of Iași, one of Romania's most important cities. Results indicate patterns of spatial polarization within the political geographic space of Iași. The paper makes contributions on issues of local politics of Iași, Romanian party politics and electoral behavior, and the special nature of European Parliament elections.

Keywords: 2019 European Parliament Elections, Romania, Iași, spatial analysis, electoral geography



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1. Introduction

Elections for the European Parliament were held across European Union state members on 23-26 May 2019. In Romania, the elections were held on 24 May and produced spectacular results. PSD, the main governing party, suffered a major defeat. Previously, the party won the legislative elections in 2016 with a landslide victory gathering 46% of votes, however, in May 2019, PSD dropped massively to only 23%. The

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elections were won by PNL, the main opposition party. Another important feature of the Romanian EP elections was the high turnout. Generally, EP elections are perceived as less important by voters and the turnout is in almost all cases lower than in legislative elections. The 2019 EP elections in Romania produced a 50% turnout, a figure greater with 10% than the previous legislative elections of 2016 and with 18% than the EP elections of 2014. The notable 2019 Romanian EP elections received only limited attention until the present moment (Soare and Tufiş 2019). This can nevertheless be explained by the recent nature of the event.

This paper makes a contribution to the understanding of Romanian EP elections by looking at the electoral behaviors in the city of Iaşi. The research is conducted through a spatial analysis perspective which sought to discover the electoral geographies and the geographic distribution of voting (Agnew and Shin, 2008). The motivation to study these elections within an urban context fuels from the current planetary state of the urbanization phenomenon (Brenner and Schmidt, 2015). Another argument in favor of electoral studies focused on urban context develops from the vary nature of urban spaces as vast variagated spaces inhabited by a wide variety of political, social, economic and cultural processes (Gottdiener, Hutchinson and Ryan, 2015). This paper is also part of recent efforts to understand Romanian electoral behaviors within an urban context (Guţoiu 2018, 2019). Iaşi is one of Romania's major cities. At the last national census of 2011, the city of Iaşi had the fourth largest population (290.422 inhabitants), while many other thousands live in its peri-urban area. Iaşi is the most economic developed city in eastern Romania and is an important culturally developed space. The city is also one of the most important universitarian and research centres in the country.

The paper is divided in three main sections. In the first section, I discuss a framework for understanding local electoral behaviors in Iaşi. Here I discuss various topics as: results of the elections at three scales (local, county and national), nature of EP elections, political context, electoral campaign, local politics in Iaşi. The methodology used for spatial analysis I describe it in section two. In the final section, I proceed to the spatial analysis of the electoral results. The paper ends with some conclusions.

2. Framework for Analysis

2.1 Electoral results

In this subsection, I discuss the results from the city of Iaşi by comparing them with the results from two other geographic scales: the county of Iaşi and the national level. The results are displayed in **Table 1**. Within Romania's territorial-administrative structure, the county (*judet*) is a higher unit than the city or the rural commune. The city of Iaşi is the seat of its eponymous county.

Table 1. Results at the elections

	city of Iaşi	county of Iaşi	Romania
USR-PLUS	37%	27%	22%
PNL	19%	26%	27%
PSD	15%	20%	23%
Pro România	7%	7%	6%
PMP	6%	6%	6%
Tudoran	6%	4%	1%
ALDE	3%	3%	4%

As seen from **Table 1** in Iași, the USR-PLUS alliance won the elections with a large margin. The two partners gained 37% of the votes. Further behind are PNL with 19% and PSD with 15%. In Iași, even further behind, are the other parties of Pro România (7%), PMP (7%), ALDE (3%) and the independent candidate Gregoriana Tudoran (6%). USR-PLUS, PNL and PSD are the main contestants. At every scale, these three together had similar shares of votes: 71% (city of Iași), 73% (county of Iași) and 72% (national level). However, there are important differences between the scales. At the county level, USR-PLUS won only at a slight margin. The alliance scored 27%, while PNL gained 26%. Still, PSD is on the third place with 20%. At the national level, PNL won the election with 27%. Closely behind is PSD with 23% and USR-PLUS with 22%. The analyses in this paper are strongly focused on these three most important actors: USR-PLUS, PNL and PSD. The other two parties, namely Pro-România and PMP, are discussed on a rather secondary level, while the independent candidate Tudoran and ALDE are not included at all in the spatial analysis.

Indeed, the elections in Iași produced some results quite different than those at the national level. However, the ranking in Iași is similar to that of other major cities. **Table 2** displays the first three top performances for the cities of Bucharest, Cluj-Napoca, Timișoara and Constanța. USR-PLUS won with a large margin in every city. Also as a constant, PNL is ranked second and PSD the third. Results in Iași should be analysed within the wider context of political behavior in other major Romanian urban agglomerations.

Table 2. Results in Romania's most important cities

	USR-PLUS	PNL	PSD
București	41%	16%	17%
Cluj-Napoca	42%	26%	8%
Timișoara	40%	23%	11%
Constanța	34%	20%	17%

2.2 European Parliamentary Elections

Elections for the European Parliament are considered to be second-order in comparison to the national legislative or presidential elections (Reif and Schmitt, 1980). There are several implications to this. Citizens express less interest for the EP elections than for the national ones. Topics on European institutions are missing from electoral campaign. Instead, national issues prevail. As EP elections are placed within the electoral cycle of first-order contests, voters use the EP elections to punish incumbent parties. As a result, opposition and small parties have a tendency to do better in EP elections.

The Romanian EP election of 2019, generally, fits into above mentioned patterns. However, there are some important differences. The turnout was higher than at the last three general elections (50% in 2019, in comparison with 40% in 2016, 42% in 2012 and 39% in 2008). The protest voting was powerful and the incumbent party of PSD was severely punished, yet with the exception with the two major opposition parties of PNL and USR-PLUS, other smaller parties didn't performed significantly better at

these elections. Also, no real importance was placed on the affiliation of parties within the political groups in the European Parliament.

2.3 Political context

The aim in this subsection is to explain the political context relevant for understanding electoral geographies at the 2019 EP election in Iași. The political context of interest for citizens of Iași, as for those in other major urban centers in Romania, at this election is related to the politics of national arena. In Romania, at these elections, the main theme was the opposition against PSD - the incumbent party. The most important actors within the opposition were USR and PNL. USR ran under an electoral alliance together with PLUS, the party of Dacian Cioloș - former Prime-Minister and EU Commission official. Pro-România is a minor party formed in 2017 as a splinter from PSD by members dissatisfied with the current leadership of the party. PMP is a small catch-all party centered around its leader Traian Băsescu, president of Romania between 2004-2014 and a strong opponent of PSD.

Since the 1990s, the main feature of Romanian politics was the fight between PSD, the main successor of the communist party (Pop-Elecheș, 1999) and its opposition, embodied by different parties across the years (Gussi, 2011). This political cleavage also impacts the Romanian social space, as the post-1990 Romanian electoral geography is constantly marked by this divide (Giugăl et al., 2011; Guțoiu 2014). Political terminologies like 'center', 'left' or 'right' have little explanatory power for Romanian politics (Tismăneanu, 1996). The competition is low ideologized. PSD is widely regarded as conservative, authoritarian and with nationalistic stances. Its opposition views itself as democratic, liberal and pro-European. The cleavage was stronger during the 90s and up to the mid-2000s (Preda and Soare, 2008). After that, Romanian politics became more personalized (Feșnic, 2011). Starting with the 2014 presidential election, this political cleavage was again the center of competition.

Generally, PSD is stronger in rural and less urbanized areas, whilst its opposition is more present in rather developed areas. However, over the years, the high use of political patronage has allowed parties from both sides of the rift to expand their electoral base in other milieux. This is mostly true for PSD and PNL, the two major parties of Romanian politics. These two preserved their top-level profile ever since the early 90s. USR-PLUS is a recent new-entry in the arena. USR was formed in 2016 and PLUS in 2019 and their electorate profile is strongly urban.

Table 3 shows the national socio-demographic profile of voters for the three actors at the national level. Differences between profiles are salient. USR-PLUS voters are the youngest. Half of its voters are below 36 years old. On the other side, PSD's electorate is the oldest, as almost half of it (42%) is aged over 65 years old. PNL is placed in between these two, neither the oldest nor the youngest. Locality size shows the urban profile of USR-PLUS. The alliance gathers 43% of its votes from the most populous cities in the country (above 200.000 inhabitants) – Iași included. Unlike the variable of age, in what regards the locality size, PNL and PSD both have a similar profile, as slightly more than a half of their voters are from rural areas. USR-PLUS has by far the highest share of voters who achieved higher education (35%). More than a half of PSD's voters (55%) achieved only elementary education. PNL's support is slightly more educated than PSD's, but the difference is rather marginal, as 42% of PNL's voters achieved only elementary education. The patterns are clear cut. USR-PLUS attracts mostly younger, urbanite and educated voters. For this reason, as a university city, Iași acted as a solid electoral base for USR-PLUS. PSD was stronger in rural parts, targeting the elderly and the poor educated. PNL also relied heavily on rural voters, yet its sympathizers were slightly more educated and also younger than those of PSD.

Table 3. Social and demographic profile of voters

		USR-PLUS	PNL	PSD
Age	18-35 y.o.	50%	28%	13%
	36-50 y.o.	30%	30%	17%
	51-65 y.o.	15%	23%	28%
	over 65 y.o.	5%	19%	42%
Locality size	Urban above 200.000 inhab.	43%	15%	17%
	Urban 100.001-200.000 inhab.	12%	6%	6%
	Urban 30.001-100.000 inhab.	12%	11%	9%
	Urban below 30.000 inhab.	11%	11%	14%
	Rural	22%	56%	53%
Education	Elementary	19%	42%	55%
	Middle	47%	46%	37%
	Higher	35%	11%	9%

Source: IRES, *Cine sunt votanții la scrutinul din 26 mai 2019*,

<http://www.ires.com.ro/articol/369/cine-sunt-votan-ii-la-scrutinul-din-26-mai-2019.-profiling-politic>

2.4 Electoral campaign

The electoral debates consisted of high antagonistic rhetorics directed towards PSD. The ruling party sparked major popular discontent when in February 2017 tried to modify the Criminal Code through controversial measures. Large anti-governmental popular protests were recurrent during 2017-2019. These massive movements had a nation-wide scale. Protests were by birth popular movements. No major opposition party successfully managed to rally the street movements in its favor. Nevertheless, the popular discontent materialized in votes for USR-PLUS or PNL. This is visible in **Table 4** which shows various results predicted by different opinion polls at the national level in the months leading to the election day. PSD won the legislative election of 2016 with 46% of votes. Its subsequent loss of votes in favour of PNL and USR-PLUS was constant up to the EP elections.

Table 4. Opinion polls before the elections

	USR-PLUS	USR	PNL	PSD
1 May 2019	20%	-	29%	21%
2 March 2019	18%	-	25%	22%
3 February 2019	18%	-	23%	23%
4 November 2018	-	15%	23%	25%
5 August 2018	-	10%	30%	30%
6 March 2018	-	11%	30%	32%

Sources:

1. <https://www.g4media.ro/ultimul-sondaj-imas-inaintea-alegerilor-de-duminica-pnl-crete-la-285-psd-aduna-211-iar-usr-plus-196.html>

2. <https://www.aktual24.ro/sondaj-imas-crestere-semnificativa-a-pnl-se-consolideaza-pe-prima-pozitie-psd-prabusire-dramatica/>
3. https://adevarul.ro/news/politica/sondaj-psd-picat-25-pnl-ajuns-egalitate-psd-ponta-vine-tare-urma-crescut-alianta-usr-plus-1_5c77c938445219c57eb435ac/index.html
4. <https://www.europafm.ro/sondaj-imas-cum-ar-vota-romanii-daca-duminica-ar-avea-loc-alegeri/>
5. <https://www.hotnews.ro/stiri-politic-22851933-update-sondaj-imas-comandat-usr-psd-coborat-sub-25-scoruri-celelalte-partide-cum-arata-evolutia-procentelor-fiecare-luna.htm>
6. <https://www.hotnews.ro/stiri-politic-22851933-update-sondaj-imas-comandat-usr-psd-coborat-sub-25-scoruri-celelalte-partide-cum-arata-evolutia-procentelor-fiecare-luna.htm>

The electoral campaign was also centered on Romania's position within the European Union. Romania is one of most pro-European countries in the Central and Eastern Europe. USR-PLUS used a pro-European and pro-Western rhetoric and argued strongly in favor of a consolidated role for Romania within the Union. This stance was in a powerful opposition against the discourse of PSD which favoured euroscepticism and nationalistic stances. PNL voiced only a mild pro-European Union rhetoric, combining it with a rather patriotic and slightly nationalistic discourse. To some extent, this was true also for Pro-România and PMP.

Despite the weak opposition towards PSD regarding the European Union topic, PNL has managed partly to gather popular support from anti-PSD voters with the help of President Klaus Iohannis. This was due to President's decision to call a consultative referendum on the problem of justice to be held on the same day of the EP elections. In Romania's constitutional system, the President has no political affiliation during his term, yet nevertheless he is elected through a partisan competition. Iohannis was elected in 2014 as the candidate of PNL. The referendum he called, was meant to display the popular discontent with PSD's criminal justice reforms.

During the last month of campaign, party rallies were organised by all three major actors in various cities across the country. PSD's rallies often sparked counter-protests. Such was the case on the 9th of May in the city center of Iași when PSD organised a rally bringing thousands of supporters from nearby localities. The event was received with discontent by hundreds of locals dissatisfied by the enclosure for security reasons and politicization of the central public square.

2.5 Local politics in the City of Iași

Now I discuss some aspects regarding the main political allegiances in Iași. The city displays some stable political allegiances ever since the 1990s. Mayors are elected for 4 year terms. Throughout this long period of time, Iași had only three mayors. A major local figure, C. Simirad won the mayoral elections in 1992, 1996 and 2000. During the 1990s, Simirad was part of the Democratic Convention, an umbrella-type and catch-all political alliance which acted as the main opposition against the successor party (ROPER 1994). The Convention was mostly efficient in larger urban areas. In 2003, Simirad moves to PSD and quits his job as mayor to become ambassador in Cuba. At this time, PSD was the main party in local politics. In 2004, G. Nichita from PSD, the successor of Simirad, was elected as mayor. He was reelected in 2008 and 2012. In 2015, Nichita resigned after official allegations of corruption. M. Chirica won the 2016 elections, again from PSD. Previously, he served as interim when Nichita resigned. Chirica was ousted from PSD in early 2018 after personal disagreements with the central leadership. Afterwards, he remained unaffiliated to any party. Starting with the 2000s, at the top level of its public administration, the city of Iași was ruled by mayors from PSD. However, as we shall see in the following paragraphs, PSD is not really a dominant party in Iași.

Table 5 shows PSD's ranking and performance at every legislative and EP elections since 1992 in Iași. As a benchmark for comparison, the table also displays the main opponent's performance. Throughout the years, PSD was just only one of the main political parties in top-level politics. It is visible from the table that PSD generally swung between the first two positions without establishing a clear stronghold in Iași. The table also reveals that the high fluidity of the Romanian party system (Soare et al. 2013) is present also at the top-level of political allegiances in Iași, since almost every electoral cycle brings another contender for PSD.

Table 5. Electoral history of PSD in the city of Iași

Election		PSD			Main opponent	
		%	Rank	Notes on candidacy	Name	%
L	2016	40%	1		PNL	20%
L	2012	60%	1	alliance with PNL and one small party	ARD	18%
L	2008	36%	2	alliance with one small party	PDL	39%
L	2004	32%	2	alliance with one small party	DA	46%
L	2000	33%	1	alliance with two small parties	PRM	22%
L	1996	15%	2		CDR	37%
L	1992	25%	2		CDR	28%
EP	2019	15%	3		USR	37%
EP	2014	35%	1	alliance with two small parties	FC	15%
EP	2009	33%	1	alliance with one small party	PDL	26%
EP	2007	20%	2		PD	30%

3. Methodological aspects

Prior to the actual spatial analysis of 2019 EP elections in Iași, at this stage I discuss the methodology employed. The analyses are conducted on a geographic database of the 66 polling locations in Iași. As seen in **Figure 1**, these locations were geo-referenced and mapped.

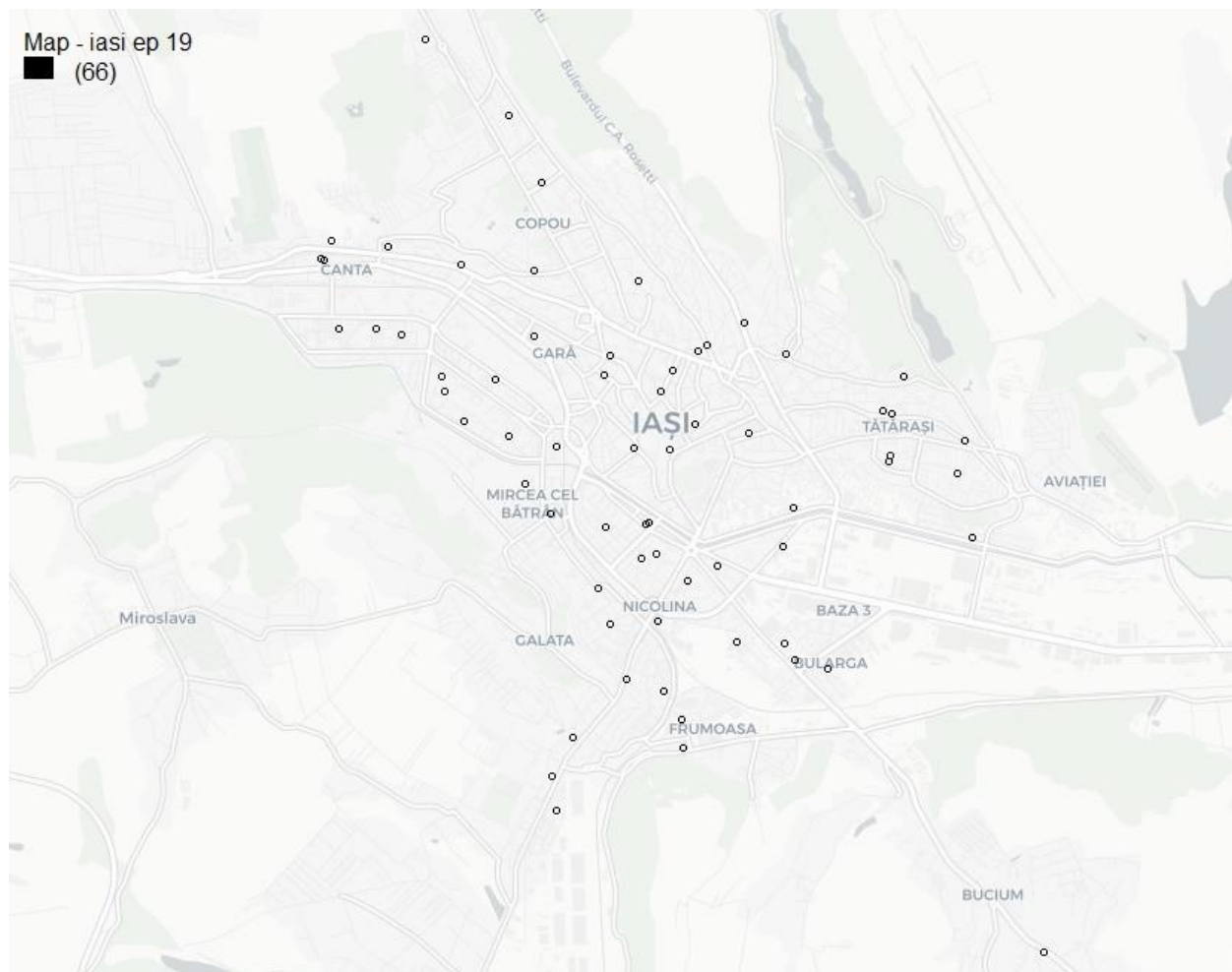


Figure 1.
66 polling locations.

As a first tool, I shall use quantile maps that divide the distribution of electoral scores (vote shares – percentages) in four equal set of values. This is a descriptive geographic representation of each candidate's performance. Further in the analysis, and also as a descriptive tool, I build ratio maps computed for pairs of two candidates. Again, values are divided in four quantiles. Electoral ratio maps are an efficient tool to visualize the geographic distribution between candidates. As such, they are employed in this paper in order to better understand the relations between candidates within the political geographic space of Iași.

Other instruments that are to be used are part of spatial econometrics, a category of statistics that accounts for the inherent correlation developed between proximate units within the geographic space, a phenomena commonly known as spatial autocorrelation (Griffith, 1987). The dependence within the geographic space is expressed in Waldo Tobler's first law of geography: *everything is related to everything else, but near things are more related than distant things* (Tobler, 1970). I measure spatial autocorrelation at global (the entire city) and local level (clusters consisting of three locations). The measurement at the global level indicates the degree of spatial polarization of electoral values, whilst the local level identifies

the actual clusters of stronger or weaker performances. These two measurements require further detailing, which I expand in the following paragraphs.

I account for the spatial autocorrelation at the global level using Moran's I. For each candidate's performance, this test gives a general measure for the degree of spatial clustering. The formula for Moran's I is formally expressed as:

$$I = \frac{N}{\sum 0} \cdot \frac{y'Wy}{y'y}$$

N is the number of observations within the dataset (polling locations); $\sum 0$ is the sum of weights; y is the vector of observations; Wy is the spatial weights matrix. In this paper I use a matrix comprising data on observation's vicinities based on a first-order contiguity definition that accounts for the nearest two observations that surround the central one.

To perform the test, I employ **GeoDa**, a free software package for spatial analysis and visualization. Values of Moran's I range from -1 (no spatial autocorrelation) to +1 (total spatial autocorrelation). Moran's I is an inferential statistical analysis. In this regard, the spatial autocorrelation observed is tested with a z-score. At a significance level of 0.05, the spatial autocorrelation is significant when z-score ranges from -1.96 to 1.96.

Local clusters of weak or strong performances I identify using LISA (*Local Indicators of Spatial Autocorrelation*) (Anselin, 1995). I perform the measurement in **GeoDa**. The software computes and displays four types of spatial association between the central location and its nearest neighboring locations: a) cluster comprising of high value surrounded by high values (h-h); b) cluster comprising of low value surrounded by low values (l-l); c) outlier comprising of low value surrounded by high values; d) outlier comprising of high value surrounded by low values. For this test, I use the same vicinity definition as for Moran's I: the first two neighboring location. I identify significant clusters at a level of 0.05.

The LISA maps displayed in this paper are those from **GeoDA**'s output, which gives the option to visualize clusters or outliers only at the central location (the two neighboring location are not marked on the map).

4. Spatial Analysis of Electoral Results

Scoring 37% of the votes, USR-PLUS won with a large margin the EP elections in the city of Iași. PSD, the incumbent party, scored only 15% as a consequence of a massive economic vote. The last 15 years in which PSD was the most important party in local politics didn't saved them from a major defeat. PSD was ranked on the third place. PNL was second, scoring only 19% in Iași, in comparison to the 27% which had allowed the party to win the EP elections the national level.

In this part of the paper I employ spatial analysis in order to understand the electoral results in Iași. The geographic distribution of electoral performances is discussed in relation to the socio-spatial and economic aspects of Iași. Firstly, I begin the spatial analysis by describing the electoral map of each candidate of interest, in order to identify and evaluate the hot spots and the areas of weak performances. In the second sequence, I explore the interactions between these electoral geographies as a way to discover patterns of conflict or overlapping within the political geographic space of Iași. Stronger emphasis is placed

on understanding the performances of USR-PLUS, PNL and PSD. Pro-România and PMP are analysed at a secondary level.

I begin the spatial analysis by discussing the quantile maps displayed in **Figure 2**. These maps show the geographic distribution of vote shares, indicating locations where parties gained more or less votes.

Generally, **USR-PLUS** recorded better performances in affluent areas and weaker performances in poorer areas. The highest scores for USR-PLUS (quantile: 40%-54%) are present in many parts of the city: Copou (low density, green, affluent and student campuses), the affluent spaces of the historical center, Păcurari (only partially in the newly developed suburban neighborhood), Bucium (car-based suburban neighborhood), Valea Adâncă (newly developed, villas, low density suburban car-based neighborhood), eastern (student campuses), southern to central city in Podu Roș (low density central and microrayon (Maxim, 2009). The lowest shares for USR-PLUS (quantile: 29%-34%) are recorded in Mircea cel Bătrân-Podul de Piatră (older, mostly socialist collective housings and other self-built homes), Cantemir and Niculina 1 (older, former working class neighborhoods, low-quality socialist collective housings), central northern (pre-World War II houses, older, low gentrification), Bularga (social and geographic periphery, poorer, low-quality socialist collective housings).

PNL recorded its highest scores (quantile: 20%-24%) in southern Copou and north-western to the central city (pre-World War II middle-upper class vilas), central historical city, Nicolina 1, eastern in Tătărași Sud (microrayon) and Aviației (suburban, poorer self-built homes, but also villas) and Bularga. Lower performances (quantile: 15%-17%) are recorded in: Valea Adâncă, student campuses, parts of the central city (more gentrified, younger) and Bucium. These were places where USR-PLUS scored it best performances in Iași.

For **PSD** the best scores (quantile: 17%-23%) are in south-western collective housings developed for working class, parts of the central city, older areas in the central north, and partially in Tătărași Sud and Bularga. Weakest performances (quantile: 4%-13%) are identified in Copou, student campuses, southern suburbs and the younger parts of central city.

Pro-România's performances are highly clustered. As for PSD, the best scores of Pro-România (quantile: 8%-9%) are recorded mostly in former socialist neighborhoods. Lowest performances (quantile: 3%-6%) are located in more affluent areas: Copou, central, Bucium, south.

PMP's best performances (quantile: 7%-9%) are present in various socio-spatialities: central city, central north, Podu de Piatră, Bucium, Frumoasa (self-built homes and low-quality socialist housings), Bularga and Tătărași Nord (low density self-built homes). Lowest scores of PMP (quantile: 3%-5%) are also scattered throughout the entire city: student campuses, Tătărași Sud, south western collective housings, Podu Roș.

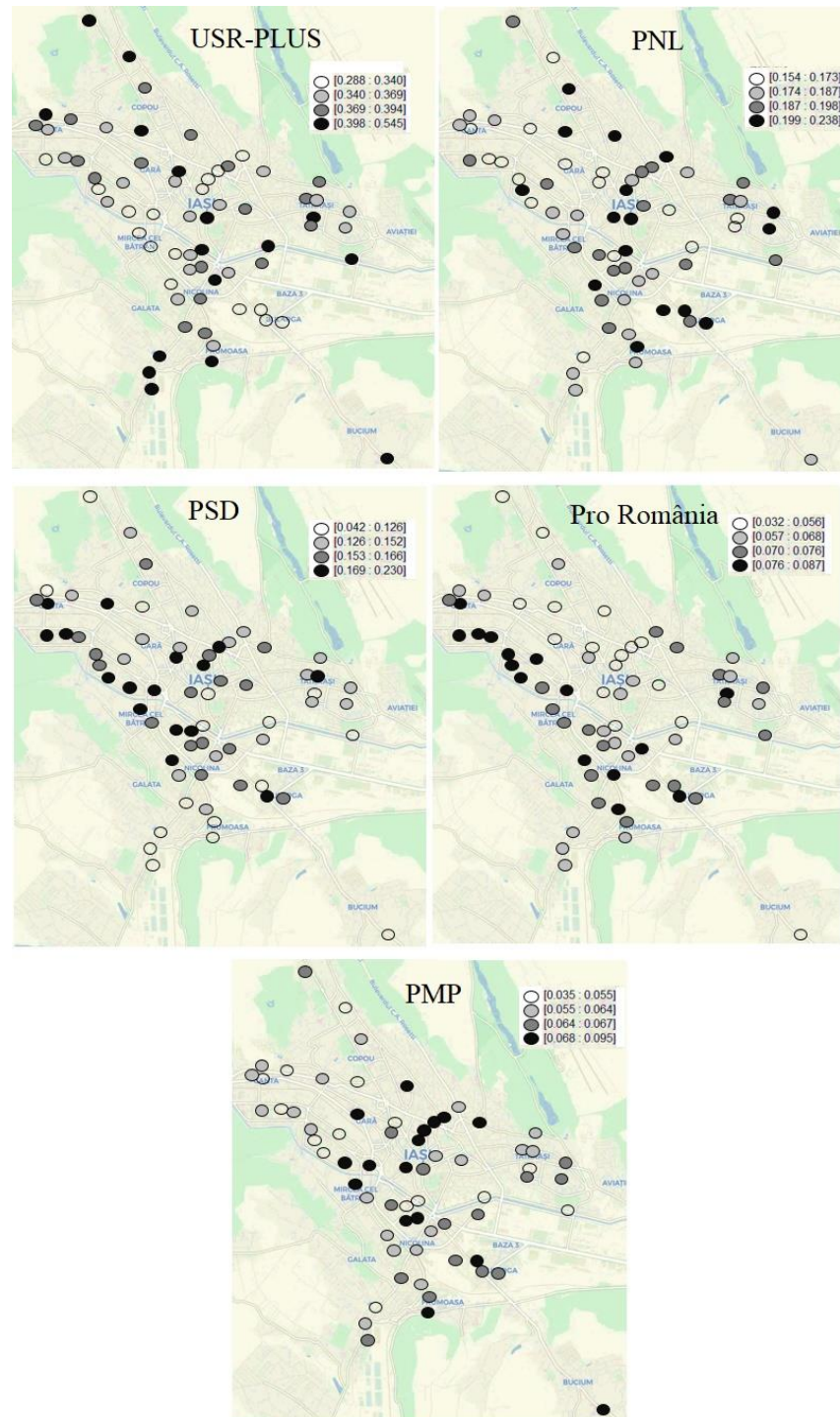


Figure 2.
Quantile maps

The quantile maps revealed important electoral patterns of spatial polarization within the city of Iași. For example, USR-PLUS recorded its highest scores in the suburbs and student campuses but did poorer in the large collective housing ensembles of the socialist era. These latter places were the main providers for PSD and Pro România electoral base.

More accurate statistical tools are required to understand the electoral geography of each actor and to also grasp the relationship between these electoral geography within the political geographic space of Iași. In this regard, firstly I employ the Moran's I to capture the degree of spatial polarization at the city level. The Moran's I values for each of the five actors are mentioned in **Table 6**. Pro România has the highest degree of spatial autocorrelation. 0.61 indicates a strong clusterization. Medium clusterization is found at USR-PLUS (0.22) and PNL (0.21). For PSD and PMP, the test purpots a scattered and randomly electoral geography because the z-score is below 1.96 but greater than -1.96. However, we have seen from the quantile maps that the performances, even for these two parties, tends to cluster in some places more than in others. Although there can be no global autocorrelation, we can still identify local clusters, due to the fact that Moran's I is a sum of individual crossproducts.

I turn now to the LISA analysis.

Table 6. Global autocorrelation with Moran's I statistics

	Moran's I	z-score
USR-PLUS	0.22	2.23
PNL	0.21	2.06
PSD	0.61	5.78
Pro-România	0.04	0.51
PMP	0.04	0.44

LISA maps are depicted in **Figure 3**. These maps show the local significant clusters. In many instances, some of these clusters are intuitive following the analyses of quantile maps. The electoral geography of USR-PLUS has some clear spatial patterns. Clusters of higher values are all located in Copou. Clusters of lower values are scattered in more than one place: Bularga, the northern part of the central city and Mircea cel Bătrân. Generally, these three spaces have a much older and poorer population than the other parts of Iași. Outlier are present north to the low-low clusters in central city. These two outlier indicate high value in the central location but lower values in the surrounding two locations. For USR-PLUS, its electoral geography is indeed spatial polarized.

PNL has less clusters than USR, yet patterns are distinctive also for this party. PNL's clusters of higher values are located in Bularga. Lower values are clustered within the eastern student campuses and western in the former working class socialist neighborhood of Dacia. An outlier of high-low values is present in the Western part of the neighborhood. This is due to the suburbanites living southern to Dacia in newly developed low density areas.

The LISA map for PSD shows indeed some local clusters. Higher performances are clustered in Alexandru cel Bun (socialist working-class collective housings neighborhood) and in the northern part of the central area, in the same place where USR-PLUS recorded a low-low cluster. For PSD there are no clusters of low performances. One outlier of low-high performances is located in Tătărași Sud in a mixed area of low density homes and microrayon. The electoral geography of Pro-România is heavy polarized

and clustered. Higher performances are clustered in collective ensembles: Dacia, Alexandru cel bun and Mircea cel Bătrân. Low performances are clustered in the northern wealthier parts of the city: central, northern in Copou and Păcurari. The electoral geography of Pro-România reveals an important divide between two large areas of Iași: south and north.

As indicated by the Moran's I test, little clusterization can be found in PMP's electoral geography. There are two clusters of higher values located in the central city. One cluster of lower values is found in Păcurari in a largely wealthier area. Outliers of high values surrounded by lower values are found also in Copou. This situation indicates the catch-all stance of PMP.

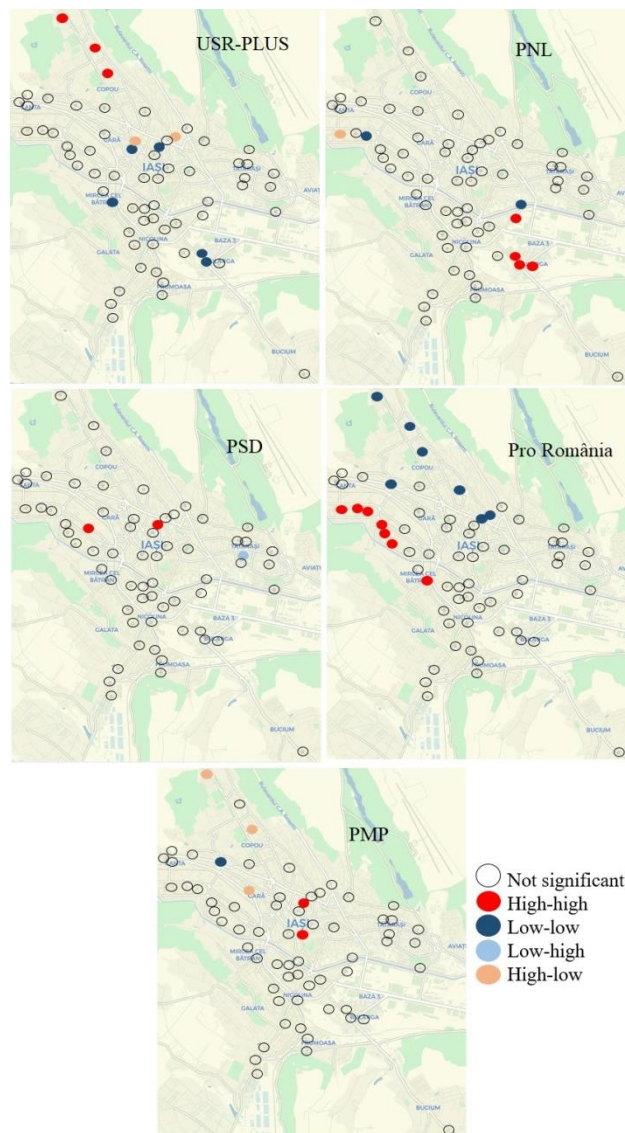


Figure 3.
Local clusters with LISA maps.

In the paragraphs above, I revealed the geographic distribution of voting, the extent of spatial electoral polarization, local clusters of support or lack of support, indicating important patterns in the electoral geography of each of the five actors. These patterns of clusterization are more or less stronger. Candidates have spaces where they do better and spaces where they do poorer. For example, USR-PLUS did better in wealthier and younger spaces. On the other hand, PNL, PSD and Pro-România relied rather on the middle-aged and older generations. In places where USR-PLUS did poorer, the other three did better. These analyses I mentioned focused on the spatialization of electoral support for each candidate, but another major topic of interest rests in understanding the relationships formed between these many geographies of support within the political geographic space. Political parties fight with each other to colonize geographic space. In their local milieux, voters interact with many political parties. In this regard, we can view electoral geographies also as spaces of power inhabited by constant dynamics of partisan realignments (Flint, 2000). Comprehending the partisan relations formed within the geographic space can enhance and help the general understanding of party and political system. The electoral geographic level is a scale where parties interact with each other. For these reasons, I continue the spatial analysis of EP elections in Iași by exploring relations between candidate's electoral geographies. In this part of spatial analysis I focus only on the three main candidates: USR-PLUS, PNL and PSD. These actors ranked on the first three places in Iași, at the national level and in other major Romanian cities. USR-PLUS, PNL and PSD are the main actors within Romania's party system, these three were also the first in the last legislative elections.

Figure 4 depicts ratio maps for pairs of the three actors (USR-PLUS:PNL, PNL:PSD, PNL:PSD). Ratios are represented and distributed in four quantiles. In all 66 locations, USR-PLUS scored most votes than any other party. For this reason, the value of ratios for USR-PLUS maps is in all cases are over 1.

The ratio maps of USR-PLUS have the highest ratios in places where the alliance did their best performances. USR-PLUS:PNL highest values (quantile: 2.2-3.5) are located in student campuses, Copou, Păcurari, partially in the central area, also partially in the socialist ensembles (Dacia and Alexandru cel Bun), southern in Valea Adâncă and partially in Tătărași Sud. Low values (quantile: 1.3-1.7) are placed extensively in Bularga and Aviației, partially in Tătărași Sud, and also partially in Mircea cel Bătrân, Cantemir, Galata and Nicolina 1.

USR-PLUS and PNL display two electoral geographies with many differences between them. Within Romania's party system, both these two actors share a common ground through their opposition towards PSD and both support liberal values and pro-European stances. However, within the urban political geographic space of Iași, USR-PLUS and PNL colonise many different socio-spatialities. For USR-PLUS:PSD ratio map, higher values (quantile: 3-12.9) are located in student campuses, Copou, Păcurari, small areas within central city, Bucium and Tătărași Sud. Lower values (quantile: 1.3-1.9) can be found in the socialist estates, older parts of the central city, Tătărași Nord and Bularga. PNL gains more votes than PSD in 57 locations. There are 9 locations where PSD has more votes than PNL. These 9 locations are representative of PSD's socio-spatialities in Iași. The lower values for PNL:PSD (quantile: 0.7-1) are largely concentrated in the southern socialist developments. Highest values (quantile: 1.5-3.6) are scattered throughout the city. They can be traced in Valea Adâncă, partially in Copou, the low density pre-World War II central and northern central tissue, Tătărași Sud, Aviației, student campuses, Bucium, partially in Bularga and in the more gentrified area of center Iași. Most of these places are the socio-spatial commonalities of USR-PLUS and PNL, where the two actors did better than in other places and PSD did poorer.

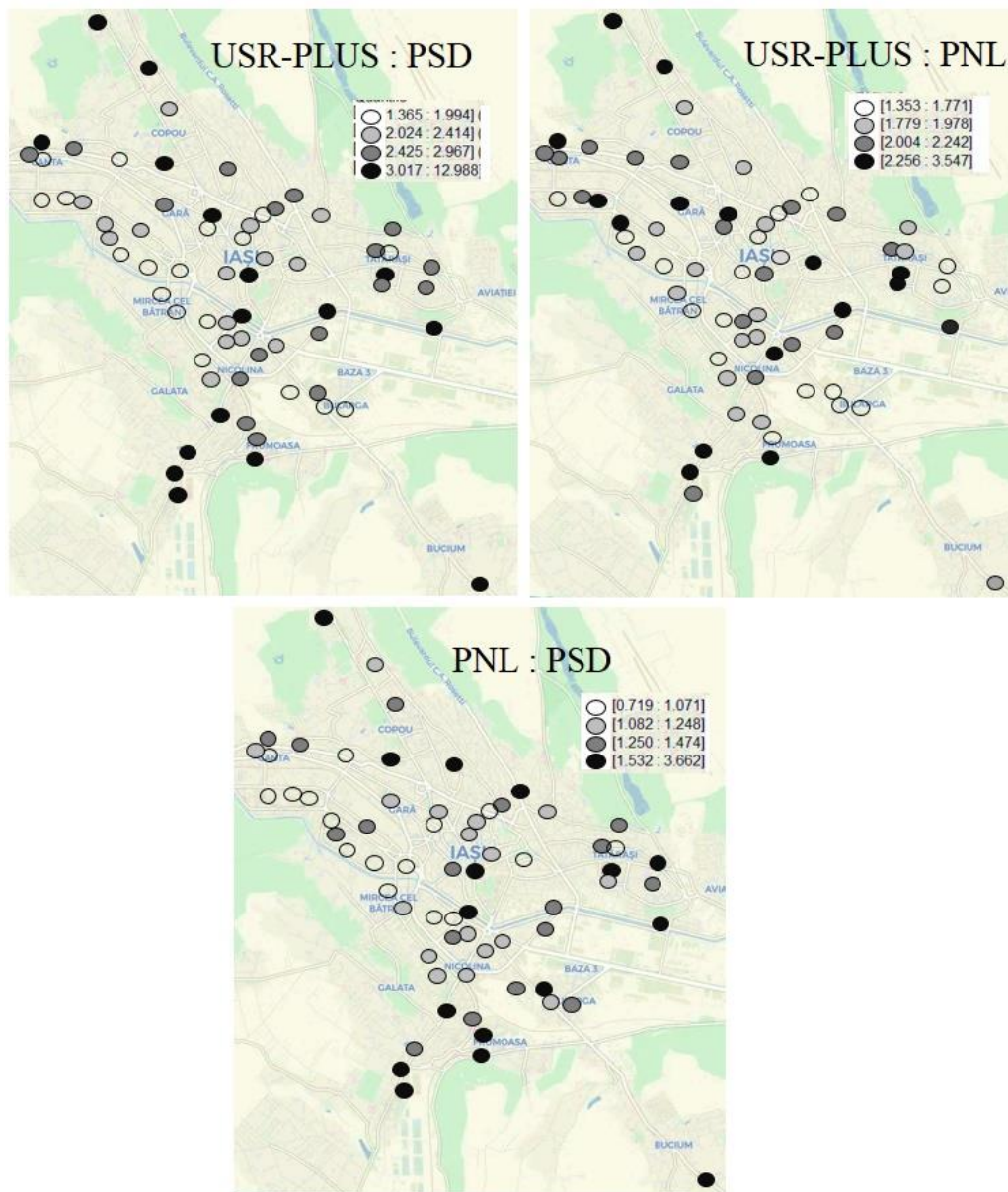


Figure 4.
Quantile for ratio maps.

In the final part of the spatial analysis, I provide a quantification of the local overlaps and opposition between the electoral geographies of USR-PLUS, PNL and PSD. This would result in a more detailed account on the actual relationships formed between these three actors within the political geographic space of Iași. For this reason, in **Table 7**, for pair of candidates, I measure the shared locations in three circumstances: 1) 15 highest scores, 2) 15 lowest scores and 3) 15 highest scores with the 15 lowest scores.

Table 7. Top and bottom scores in 15 polling locations

	Performances	USR-PLUS	PNL	PSD
USR-PLUS	First 15	*	2	0
	Last 15	*	0	0
	First 15 vs. Last 15	*	4	12
PNL	First 15	2	*	2
	Last 15	0	*	2
	First 15 vs. Last 15	7	*	3
PSD	First 15	0	2	*
	Last 15	0	2	*
	First 15 vs. Last 15	9	5	*

From this table, it becomes clear that the similarities between USR-PLUS and PNL electoral geographies are rather low. They share only 2 locations in the top 15: in Copou and in the south central. In fact, PNL has four shared locations with PSD (two for each category). The shared locations for the least 15 performances are identified near the student campuses in the eastern part of Iași. The crossed performances display the actual opposition between the electoral geographies. USR-PLUS has 4 of its top 15 locations in opposition with PNL. These are located in Copou, central city and near the student campuses. The opposition between USR-PLUS and PSD is more obvious and consistent, as 12 of the 15 top performances of the alliance are found in the last 15 scores of PSD. PNL scores its best performances in places where USR-PLUS achieved rather medium or lower performances. In this regard, 7 of the top 15 performances of PNL are located in places where USR-PLUS scored its 15 lower performances. These are located in Bularga and low density areas (periphery but also central). In comparison, for the same category, PNL has only 3 locations shared with PSD. Each of the three actors has a rather distinctive electoral geography with few spaces of overlapping. PSD's map is in strong opposition with USR-PLUS. 9 of its 15 best performances are placed in USR-PLUS low score category. These are located in the socialist working class neighborhoods and northern in the low density area. Placed in similar socio-spatialities there are also the 5 best performances of PSD, in opposition with PNL.

5. Conclusions

In this paper, I have spatially analysed the electoral results of the 2019 EP elections in the Romanian city of Iași. In Romania, these elections produced some spectacular results marked by an unprecedented mobilization for EP elections in this country, and a major defeat for PSD, the governing party. In Iași, the elections were won by USR-PLUS, an opposition party, with a land-side victory (37%). PNL, the major opposition party, came second (19%) and PSD on the third place (15%). These results were quite different from those at the national level, where PNL won with 27%, PSD was second with 23% and USR-PLUS on the third place with 22%. The outcome in Iași was representative for the other larger cities in Romania where the ruling party witnessed a major defeat.

The aim in this paper was to understand the EP elections of 2019 in the city of Iași. For this reason, I have spatially analysed the electoral data on a primary level for the third main actors (USR-PLUS, PNL and PSD), but also on a secondary level for other two minor political parties (Pro-România, PMP). The spatial analysis revealed an important political geographic polarization within the city. Electoral geographies that developed within the city at these elections displayed patterns of polarization between the various socio-spatialities of Iași. USR-PLUS scored higher shares of vote than any other party in all polling location. However, the electoral geography of the alliance developed with geographic variations of support. USR-PLUS was stronger in the younger and richer parts of the city (Copou, central area, newly developed suburbs, student campuses) and weaker in older and poorer areas (the neighborhoods of socialist era and the spaces of self-built homes). PSD relied mostly on those former socialist working class neighborhoods, whilst PNL created an electoral geography that depended on a variety of socio-spatialities (middle-aged, low density, poorer or relatively richer). The findings on the spatial structuration of voting at the EP elections in Iași advances the knowledge in the field of local politics of Iași and other major Romanian cities. Also, the spatial analysis has revealed important aspects on what regards the linkage between Romanian political parties, their place within the political system and the social geographic space. The main fixture of Romanian party system is the opposition between the rather conservative and nationalistic PSD and its liberal opposition. USR-PLUS and PNL both claim this niche of opposition towards PSD, and both display liberal and pro-Westerner stances. However, as I have revealed for Iași, their electoral geographies are in many aspects in opposition one with another. PNL gathers electoral supports from socio-spatialities that are sought also by PSD.

Further studies should expand on these findings for a better understanding of local politics and electoral behaviors in Iași and other major Romanian cities, the Romanian party system and also the second-order nature of EP elections.

Annex 1. Acronyms and names for political parties

Acronym	Name	
	Romanian	English
ALDE	Alianța Liberalilor și Democraților	Alliance of Liberals and Democrats
PLUS	Partidul Libertate, Unitate și Solidaritate	Freedom, Unity and Solidarity Party
PMP	Partidul Mișcarea Populară	Popular Movement Party
PNL	Partidul Național Liberal	National Liberal Party
PSD	Partidul Social Democrat	Social Democratic Party
USR	Uniunea Salvați România	Save Romania Union

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